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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,333	10/03/2000	Mikio Watanabe	0879-0281P	4816

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EXAMINER

AGGARWAL, YOGESH K

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/678,333

Applicant(s)

WATANABE, MIKIO

Examiner

Yogesh K. Aggarwal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/29/2005 has been entered.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyokawa (US Patent # 6,204,877) in view of Katsuhiro (JP Patent # 04098996).

[Claim 1]

Kiyokawa teaches an information-recording device (figures 2-4 and 8) comprising a recorder (IC card 19) for recording images, a communication device (data input/output section 23) for transmitting image information to external equipment, a controller (system controller 20) for controlling the communication section (23) with an external unit through a data bus B2 (col. 5

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lines 4-7). Kiyokawa further teaches a camera on the slave side transmitting an image to the master side in step S51 (figure 8), and the camera on the master side receiving the image data in step S41 (col. 9 lines 21-24). At step S42, the system controller 20 checks whether the trigger switch 45 is depressed (instruction to capture an image) and if the trigger switch is depressed, a transmission stop command to the slave side to stop the image transmission is generated (col. 9 lines 25-39). Kiyokawa teaches that the reason for stopping the transmission from the slave side to the master side is so that the master side does not lose a shutter chance and a photographing operation is preferentially performed (col. 9 lines 47-54). Therefore it is noted that in order to perform a photographing operation preferentially the master camera stops receiving the images and thus would be obvious to one skilled in the art that it would also not perform transmitting operation from the data input/output section during that time.

Kiyokawa teaches that during the time image is being taken an image receiving or transmitting operation does not take place but fails to teach an oscillation section that stops the pausing of the carrier frequency when the image is being recorded.

However Katsuhiro teaches stopping the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device or a transmission line and starting the output of the clock signal when there is any change in order to reduce the power consumption due to a dark current (Abstract). A wireless device is inherently taught when transmission via a carrier frequency is done.

Therefore taking the combined teachings of Kiyokawa and Katsuhiro, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have stopped the output of a clock signal for an oscillation circuit when there is no change in an input

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signal to an external device during the image taking of Kiyokawa in order to reduce the power consumption due to a dark current as taught in Katsuhiro.

[Claim 2]

In the combination of references, Kiyokawa teaches to start transmitting the image after the images are recorded in the slave camera (col. 9 lines 40-54) and Katsuhiro teaches starting the oscillation section when the signal for transmission is present (Abstract).

[Claims 3 and 7]

Regarding claims 3 and 7 these are method claims corresponding to apparatus claim 1 and 2 respectively. Therefore, claims 3 and 7 are analyzed and rejected as previously discussed with respect to claim 1 and 2.

[Claim 4]

Kiyokawa teaches a transmit image data transmission stop command from the master side to the slave side indication that the transmission of images is to be stopped. Katsuhiro teaches stopping the output of a clock signal for an oscillation circuit when there is no change in an input signal to an external device (Abstract).

[Claim 8]

Kiyokawa further teaches to start transmitting the image after the images are recorded in the slave camera (col. 9 lines 40-54). Kiyokawa also teaches that the steps of transmitting image and control data may be performed manually or automatically according to a control program (col. 3 lines 40-50). Katsuhiro teaches starting the oscillation section when the signal for transmission is present (Abstract).

[Claim 9]

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See Examiner's rejection regarding claim 1.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyokawa (US Patent # 6,204,877) in view of Katsuhiro (JP Patent # 04098996) and in further view of Yokota et al. (US Patent # 5,847,662).

[Claim 6]

Kiyokawa and Katsuhiro fail to teach, "... the step of receiving a synchronization signal emitted by external equipment while the generation of said carrier is stopped". However these limitations are well known in the art as evidenced by Yokota (col. 2 lines 6-10)[Yokota teaches that the signal received from the radio card is phase-synchronous (synchronization signal) with the first carrier frequency and while that signal is received the generation of the first carrier is stopped (col. 1 lines 46-65)]. Therefore taking the combined teachings of Kiyokawa, Katsuhiro and Yokota as a whole, it would have been obvious to one skilled in the art at the time of the invention to incorporate receiving a synchronization signal emitted by an external equipment while the generation of said carrier is stopped as taught in Yokota into the system of Kiyokawa in view of Katsuhiro in order to have synchronization between the camera and the external equipment even after the transmission of the carrier is stopped.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyokawa (US Patent # 6,204,877) in view of Katsuhiro (JP Patent # 04098996) and in further view of Yoshizawa et al. (US Patent # 4,802,201).

[Claim 5]

Kiyokawa in view of Katsuhiro teach the limitations of claim 4 but fails to teach "... causing any external equipment to transmit equipment identification information to another equipment

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for stopping a carrier; and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information”. However these limitations are well known in the art as evidenced by Yoshizawa (Abstract). It is noted that Yoshizawa specifically teaches that when a carrier wave is received from an external equipment and when the identification information contained in that carrier wave coincides with a preassigned identification signal, transmission of a paging signal, which would involve some kind of carrier, is stopped (Abstract). Therefore taking the combined teachings of Kiyokawa, Katsuhiro and Yoshizawa as a whole, it would have been obvious to one skilled in the art to modify the external equipment by transmitting equipment identification information to another equipment for stopping a carrier and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information. Doing so would lead to a power saving type apparatus as taught in Yoshizawa (col. 2 lines 46-49).

7. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyokawa (US Patent # 6,204,877) in view of Katsuhiro (JP Patent # 04098996) and in further view of Yokota et al. (US Patent # 5,847,662).

[Claim 10]

Kiyokawa in view of Katsuhiro teaches that the wireless oscillation is stopped during an imaging process but fails to teach, wherein, “while said wireless oscillation is stopped after the communication with desired external equipment has been established, said communication device is placed into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section.” However Yokota teaches that these limitations are well known and used in the art. It is noted that Yokota does teach in col. 2

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lines 6-10, when the device receives the second carrier it stops transmitting the first carrier (col. 1 lines 40-45) and synchronizes with the first carrier frequency. The Examiner considers the semi-stop state as receiving a phase-synchronous signal from the external equipment. Therefore taking the combined teaching of Kiyokawa, Katsuhiro and Yokota it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate stopping said wireless oscillation after the communication with desired external equipment has been established and placing the communication device into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section. The benefit of doing so would be so that a communication apparatus can continuously transmit or receive a vast amount of data at a time at a high speed without intermission as evidenced in Yokota (col. 1 lines 40-45).

[Claim 12]

In light of the teaching from Kiyokawa, Katsuhiro and Yokota, it would be obvious to those skilled in the art that the electronic camera would notify said external equipment that it will go into said semi-stop state and after stopping said semi-stop state, it would notify said external equipment that it has been released from said semi-stop state in order to have the external equipment be in a synchronization state with the camera. Yokota teaches that said external equipment keeps the connection therewith and supplies a synchronization signal in response to the notification of semi-stop state received from said electronic camera (Col. 2 lines 6-10).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyokawa (US Patent # 6,204,877), Katsuhiro (JP Patent # 04098996), Yokota et al. (US Patent # 5,847,662) and in further view of Anderson (US Patent # 6,233,016).



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[Claim 11]

Kiyokawa, Katsuhiro and Yokota fails to teach "... wherein said semi-stop state starts when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state. However Anderson teaches that these limitations are well known and used in the art. It is noted that Anderson, col. 7 lines 36-39, teaches a semi-stop state, wherein the semi-stop state is read as being started during a state when the power is in the Power-state 4 mode, during which a reduced power is supplied to the camera.

Further with regards to the limitation of said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state Anderson teaches that said semi-stop ends during the power-state 2 mode during which an imaging operation is finished (col. 7 lines 44-46). Therefore taking the combined teaching of Kiyokawa, Katsuhiro, Yokota and Anderson it would have been obvious to one skilled in the art at the time of the invention to have been motivated to start said semi-stop state when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and to end said semi-stop state when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state. The benefit of doing so would be to effectively and significantly increase the useful life of the batteries as taught in Anderson (col. 3 lines 51-53).


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YKA  
November 21, 2005

  
DAVID OMETZ  
SUPERVISORY PATENT EXAMINER